

REMARKS

The Office Action rejects claims 1-38. Applicant cancels claims 8 and 23 without prejudice or disclaimer. Applicant amends claim 6 to include the features of claim 8, and therefore claim 6 has the same scope of original claim 8. Applicant amends claim 21 to include the features of claim 23, and therefore claim 21 has the same scope as original claim 23. Further, Applicant amends claim 9 to depend from claim 6, and amends claim 24 to depend from claim 21. Accordingly, the scope of claims 9 and 24 remain unchanged.

Additionally, Applicants amend claims 1, 10, 15, 16, 25, 31, 33, and 36 to further clarify the features of those claims.

Accordingly, claims 1-7, 9-22, and 24-38 are pending.

REJECTION OF CLAIMS 1 AND 4-5 UNDER 35 U.S.C. §102(b)

The Office Action rejects claims 1 and 4-5 under 35 U.S.C. §102(b) as being anticipated by U.S Patent 5,887,456 issued to Tanigawa et al. (hereinafter referred to as "Tanigawa"). This rejection is respectfully traversed.

Tanigawa does not disclose, teach or suggest at least, "a controller to calculate a temperature difference between the initial detected temperature and the final detected temperature for each set section, and to determine whether an end of a drying process is reached based on a comparison of at least two temperature differences of two set sections," as recited in claim 1.

Instead, Tanigawa teaches finishing the drying operation when a temperature detected by the exhausted air temperature sensor 8 or detected by the intake air temperature sensor 10 has reached or exceeded a pre-selected temperature (column 10, lines 16-29). Further, Tanigawa does not disclose, teach or suggest calculating a temperature "difference" between the initial detected temperature and the final detected temperature for each set section in determining whether to end a drying process based on a comparison of "at least two temperature differences of two set sections." Therefore, for at least these reasons, claim 1 patentably distinguishes over the cited reference.

Claims 4 and 5 depend from claim 1 and include all the features of that claim plus additional features which are not taught or suggested by the cited reference. Therefore, for at

least these reason, claims 4 and 5 also patentably distinguish over the cited reference.

REJECTION OF CLAIMS 6-9 UNDER 35 U.S.C. §102(b)

The Office Action rejects claims 6-9 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,806,204 issued to Hoffman et al. (hereinafter referred to as "Hoffman"). This rejection is respectfully traversed.

Hoffman does not disclose, teach or suggest at least, "the controller determines whether the end of the drying process is reached by detecting the water temperature at regular drying time intervals using the water temperature detecting unit, and comparing an accumulated temperature difference, which is calculated by accumulating temperature differences obtained in set sections, with a set value," as recited in claim 6.

Hoffman discloses conductivity sensors for measuring moisture content of a material such as clothes to be dried. Temperature probes are used to measure various temperatures and pressure sensors to measure pressure inside the chamber containing the clothes (column 3, lines 20-40). As indicated in column 5, lines 21-24, Hoffman discloses that sensors 38 can be used to monitor the time of operation or automatically determine the length of operation by determining moisture content, pressure and temperature of the chamber.

However, Hoffman does not disclose, teach or suggest at least, "comparing an accumulated temperature difference, which is calculated by accumulating temperature differences obtained in set sections, with a set value," as recited in claim 6. Instead, Hoffman indicates that the temperature of the chamber containing the clothes is monitored and that the temperature may control the length of operation for the time needed to complete a drying cycle. (column 4, line 66 - column 5, line 3 and column 5, lines 22-24).

Therefore, Hoffman does not teach or suggest accumulating "temperature differences" and "comparing the accumulated temperature differences" with a set value as provided in claim 6. Therefore, for at least these reasons, claim 6 patentably distinguishes from the cited reference.

Claim 8 is cancelled without prejudice or disclaimer.

In addition, claims 7 and 9 depend from claim 6 and include the features of claim 6 plus additional features not taught or suggested by the cited reference. Therefore, for at least these reasons, claims 7 and 9 also patentably distinguish over the cited reference.

REJECTION OF CLAIMS 15, 31-34 and 37-38 UNDER 35 U.S.C. §102(b)

The Office Action rejects claims 15, 31-34 and 37-38 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,161,306 issued to Clodic. This rejection is respectfully traversed.

Clodic does not disclose, teach or suggest at least, “a controller to calculate a temperature difference between the initial detected temperature and the final detected temperature for each set section, and to terminate a drying process according to a comparison of at least two temperature differences of two set sections,” as recited in claim 15.

Clodic discloses determining an end of a drying operation using a temperature measured from probe 28 mounted at an inlet of the enclosure 1, temperature probe 29 mounted at the outlet of the enclosure 1, and a level sensor 16, which measures the level of condensed water in the condensate recuperator 17 (col. 4, lines 42-52). However, Clodic does not disclose, teach or suggest at least, “a comparison of at least two temperature differences of two set sections,” which are used to determine whether an end of a drying process is reached. Therefore, for at least these reasons, claim 15 patentably distinguishes over the cited reference.

In addition, Clodic does not disclose, teach or suggest at least, “terminating a drying process if an end of the drying process is determined to be reached based upon at least two condensed water temperature differences,” as recited in claim 31. Therefore, for at least these reasons, claim 31 patentably distinguishes over the cited reference.

Claims 32-34 and claims 37-38 depend from claim 31 and include all of the features of that claim plus additional features not taught or suggested by the cited reference. For example, with respect to claim 34, Clodic does not disclose, teach or suggest, at least, “accumulating temperature differences, which are accumulated over corresponding ones of the regular time interval; and comparing the accumulated temperature difference with a set value.” Therefore, for at least these reasons, claims 32-34 and 37-38 also patentably distinguish over the cited references.

REJECTION OF CLAIMS 2-3 UNDER 35 U.S.C. §103(a)

The Office Action rejects claims 2-3 under 35 U.S.C. §103(a) as being unpatentable over Tanigawa in view of Clodic.

Claims 2-3 depend from claim 1 and include all of the features of that claim plus

additional features which are not taught or suggested by the cited references. For example, Tanigawa and Clodic, taken separately or in combination, do not disclose, teach or suggest “a controller to calculate a temperature difference between the initial detected temperature and the final detected temperature for each set section, and to determine whether an end of a drying process is reached based on a comparison of at least 2 temperature differences of two set sections,” as recited in claim 1. Therefore, for at least these reasons, claims 2 and 3 also patentably distinguish over the cited references.

REJECTION OF CLAIMS 10-14 and 16-30 UNDER 35 U.S.C. §103(a)

The Office Action rejects claims 10-14 and 16-30 as being patentable over U.S. Patent No. 4,250,628 issued to Smith et al. (hereinafter referred to as “Smith”) in view of U.S. Patent No. 5,228,212 issued to Turetta et al. (hereinafter referred to as “Turetta”). This rejection is respectfully traversed.

Smith and Turetta, taken separately or in combination, do not disclose, teach or suggest at least, “terminating a drying process if an end of the drying process is determined to be reached based upon a comparison of at least two detected water temperature differences,” as recited in claim 10. Instead, Smith teaches termination drying when electrical feedback from a solid state microwave array indicates that the radiation from the array is being absorbed at a reduced rate in the drying chamber (column 9, lines 65-68).

In contrast, Turetta discloses monitoring and controlling a drying operation in accordance with a quantity of water present in at least one of two levels 15 and 19 (column 3, line 35-40).

Applicant respectfully submits that one having ordinary skill in the art would not have combined an electrical feedback from a solid state microwave array of Smith with a drying operation controlled by the quantity of water present in at least one of two vessels 15 and 19 as taught by Turetta.

Moreover, neither of the cited references discloses, teaches or suggests at least, “terminating a drying process if an end of the drying process is determined to be reached based upon a comparison of at least two detected water temperature differences,” as recited in claim 10. Therefore, for at least these reasons, it is respectfully submitted that claim 10 patentably distinguishes over the cited references.

Claims 11-14 depend from claim 10 and include all of the features of claim 10 plus

additional features which are not taught or suggested by the cited reference. For example, Smith and Turetta, taken separately or in combination, do not disclose, teach or suggest at least, "whether the end of the drying process is reached is determined by detecting the water temperatures at regular drying time intervals, calculating an accumulated temperature difference by accumulating temperature differences obtained in set sections, and comparing the accumulated temperature difference with a set value," as recited in claim 13. Therefore, for at least these reasons, claims 11-14 also patentably distinguish over the cited references.

Similarly, Smith and Turetta do not disclose, teach or suggest at least, "a controller to terminate a drying process according to changes in temperature differences of the detected condensed water temperatures," as recited in claim 16. Therefore, for at least these reasons claim 16 patentably distinguishes over the cited references.

Claims 17-20, and 25-30 depend from 16 and include all the features of that claim plus additional features not taught or suggested by the cited references. Therefore, for at least these reasons, claims 17-20 and 25-30 patentably distinguish over the cited references.

Similarly, Smith and Turetta, taken separately or in combination, do not disclose, teach or suggest at least, "the controller determines whether to terminate the drying process by detecting the temperature of the condensed water at regular time intervals using the temperature detector, and comparing accumulated temperature differences, which are accumulated over corresponding ones of the regular time intervals, with a set value," as recited in claim 21.

As discussed above, neither Smith nor Turetta discloses comparing accumulated temperature differences with a set value. Therefore, for at least these reasons, claim 21 patentably distinguishes over the cited reference.

Claim 23 is cancelled without prejudice or disclaimer.

Claims 22 and 24 depend from claim 21 and include all the features of that claim plus additional features which are not taught or suggested by the cited references. Therefore, for at least these reasons, claims 22 and 24 also patentably distinguish over the cited references.

REJECTION OF CLAIMS 35-36 UNDER 35 U.S.C. §103(a)

The Office Action rejects claims 35-36 under 35 U.S.C. §103(a) as being unpatentable

over Clodic. This rejection is respectfully traversed.

As discussed above, Clodic does not disclose, teach or suggest at least, "terminating a drying process if an end of the drying process is determined to be reached based upon at least two condensed water temperature differences," as recited in claim 31.

Claims 35 and 36 depend from claim 31 and include all of the features of that claim plus additional features which are not taught or suggested by the cited references. In addition, claim 34 depends from claim 31. As discussed above, Clodic does not disclose, teach or suggest at least, "accumulating temperature differences, which are accumulated over corresponding ones of the regular time interval; and comparing the accumulated temperature difference with a set value," as recited in claim 34.

In addition, Clodic does not disclose, teach or suggest at least, "terminating of the drying process comprises terminating the drying process when the determined condensed water temperature differences decreases by a predetermined amount," as recited in claim 36.

Therefore, for at least these reasons, claims 35 and 36 also patentably distinguish over the cited references.

Summary

Claims 1-7, 9-22, and 24-38 are pending and are under consideration. It is respectfully submitted that none of the references taken separately or in combination disclose the present claimed invention.

There being no further outstanding objections or rejections, it is submitted that the present application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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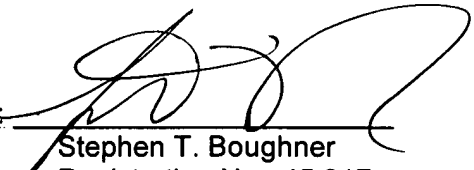
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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Stephen T. Boughner
Registration No. 45,317

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501